

1200 G Street, NW • Suite 500
Washington, DC 20005
202-628-6380 • Fax: 202-393-5453
www.atis.org



December 14, 2001

Magalie Roman Salas
Secretary
Federal Communications Commission
Office of the Secretary
445 12th Street, SW, Room TW-A325
Washington, DC 20554

Re: RM-10330

Dear Ms. Salas:

The Alliance for Telecommunications Industry Solutions (ATIS) files this informational statement with the Federal Communications Commission in the above-referenced matter and in response to the November 15, 2001 Public Notice requesting statements on the Schellhardt Petition for a Notice of Proposed Rulemaking¹. The Schellhardt Petition is seeking an amendment to the Commission's rules with respect to the shielding of electronics equipment against the hostile use of electromagnetic pulse (EMP).

ATIS is providing information on the standards work of its sponsored Committee T1 relating to the shielding of EMP and the 1985 request of the National Security Telecommunications Advisory Committee (NSTAC) that prompted such work. This information corrects the assertion made in the Schellhardt Petition that no EMP shielding standards resulted from an earlier study and recommendation of the NSTAC.²

Specifically, in a letter to the American National Standards Institute (ANSI) dated April 10, 1985, the NSTAC requested the assistance of Committee T1 in developing "certain telecommunications standards important to the National Security Emergency Preparedness (NSEP)

¹ Schellhardt Petition, "Request Amendment of the Commission's Rules Relating to the Shielding of Electronics Equipment Against Acts of War or Terrorism Involving Hostile Use of Electromagnetic Pulse (EMP)," dated September 27, 2001.

² Schellhardt Petition p. 19



posture of the Nation's telecommunications infrastructure."³ The NSTAC addressed the letter to ANSI given Committee T1's status as an ANSI-accredited standards developing organization. The letter referenced an attachment that specifically set forth the recommended subject areas for standardization. The attachment is entitled, "Summary of Salient Features of American National Standards Whose Development and Widespread Use Would Significantly Improve the Electromagnetic Pulse (EMP) Resistance of the U.S. Telecommunications Infrastructure."

In response to the NSTAC request, Committee T1 developed several standards. A complete list of those standards is provided as an attachment to this letter. The standard most directly related to the EMP issue is T1.320-1994 (Above-Baseline Electrical Protection for Designated Telecommunications Central Offices and Similar-Type Facilities Against High-Altitude Electromagnetic Pulse (HEMP)). The standard is intended as a guide for the application of basic HEMP protection measures to central office and other similar facilities. The standard was reaffirmed in 1999.

By way of background information, Standards Committee T1 develops American National Standards, technical reports and technical requirements for telecommunications services, network interconnection, interoperability, and performance. Committee T1 provides technical input to the United States Department of State supporting U.S. participation in international standards bodies. More than 1,200 telecommunications engineers and technologists bring their expertise to Committee T1's six technical subcommittees. Committee T1 is a founding member of the Global Standards Collaboration (GSC) group of regional standards development organizations and works with the FCC on network reliability issues.

Committee T1 continues to function as the forum for the industry to develop standards and resolve technical issues and is currently addressing projects in the areas of Critical Infrastructure Protection (CIP) and Emergency Services. We ask that the Commission include this information in the record and take note of the work developed through the industry process.

Sincerely,

Megan L. Campbell
General Counsel

Attachment

cc: Susan M. Miller, ATIS President and CEO
Ray Hapeman, T1 Chair
Wayne Zeuch, T1 Vice Chair

³ Letter from Joseph V. Charyk, Chairman, and Winston D. Powers, Lieutenant General, USAF, Manager, National Security Telecommunications Advisory Committee to John Rankins, Chairman of the Board, American National Standards Institute, dated April 10, 1985, copy available upon request from ATIS.

ATTACHMENT

Listing of Committee T1 Standards Relating to the Protection of the Telecommunications Network and Equipment

The full text of these standards may be found at the ATIS Document Center at: www.atis.org.

T1.308-1996 Central Office Equipment - Electrostatic Discharge Immunity Requirements -- This standard provides electrostatic discharge (ESD) immunity criteria and test procedures for equipment assemblies intended for use in telephone central offices. It is intended to establish the capability of central office equipment to function normally after receiving typically encountered electrostatic discharges.

T1.313-1997 Electrical Protection for Telecommunications Central Offices and Similar Type Facilities -- Telecommunications central offices and similar type facilities are often subjected to disturbances from lightning and ac power line faults, either directly or indirectly, through the communications cables and ac power facilities that serve them. This standard provides the minimum electrical protection, grounding, and bonding criteria necessary to mitigate the disruptive and damaging effects of lightning and ac power faults. It is intended to serve as a guide for designers of such facilities in the application of electrical protection, grounding, and bonding, as a function of the electrical environment.

T1.320-1994 (current version T1.320-1999) Above-Baseline Electrical Protection for Designated Telecommunications Central Offices and Similar-Type Facilities Against High-Altitude Electromagnetic Pulse (HEMP) -- Telecommunications central offices and similar-type facilities may be subjected to the effects of a High-Altitude Electromagnetic Pulse (HEMP). HEMP is a by-product of a high altitude (i.e., above the atmosphere) nuclear explosion. Such a pulse is capable of causing extensive upset and possibly disabling damage to unprotected telecommunications facilities within line-of-sight of the nuclear device detonation point(s). Central offices and similar type facilities that incorporate the baseline electrical protection measures specified in T1.313-1991 (current version T1.313-1997) provide a measure of protection against the HEMP contingency. The purpose of this new above-baseline standard (T1.320) is to provide additional mitigation measures that will significantly increase the protection of critical components of the public telecommunications network in the event that it becomes exposed to the effects of HEMP. This standard is intended as a guide for the designers of such facilities in the application of basic HEMP protection measures to those central offices and similar-type facilities that may be specifically designated under government contract to receive such measures.

T1.PP.328-2001 Protection of Telecommunications Links from Physical Stress and Radiation Effects and Associated Requirements for DC Power Systems (A Baseline Standard) -- This standard provides baseline measures describing the durability (survivability) of outside plant copper-conductor and optical-fiber telecommunications distribution links to various levels of physical stress and radiation effects. The standard applies to optical fiber and metallic links for trunk, feeder, and local distribution. This standard includes information for the design and installation of aerial, buried, and underground plant, and applies to all telecommunications networks including but not limited to exchange carriers and interexchange carriers. The standard is intended for new installations, and not necessarily for replacement of existing systems. The standard addresses protection against threats such as wind, temperature, fire, water penetration, and the means to keep the links energized (telecommunications power).

T1.331-1999 Description of Above-Baseline Physical Threats to Telecommunications Links -- This standard describes physical threats to outside plant copper-conductor and optical telecommunications distribution links. These physical threats exceed the levels of physical threat considered in the baseline standard, and are not protected against as a generally accepted practice throughout the country. The standard describes threats such as vibration, liquid penetration in cables, radiation, temperature wind and ice construction threats, corrosion, lightning and exposure to ac power, and loss of telecommunications power.